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(54) Title: **ANTI-IDIOTYPE ANTI-CEA ANTIBODY MOLECULES AND ITS USE AS CANCER VACCINE**

(57) Abstract: The present invention provides molecules, preferably designed immunoglobulins, suitable for use as an anti-idiotype vaccine to CEA positive tumours. The molecules induce both an MHC class I and MHC class II mediated immune response to the CEA bearing tumour cells for an efficient and sustained host anti-tumour response. The present invention provides modified versions of anti-idiotype anti-CEA antibodies, preferably mouse antibody 708, with improved vaccination properties. The modifications are related to the introduction of sequences tracts deriving from e.g. CEA, CD55 antigen and CEA cancer-specific MHC epitopes into the variable regions of said antibody molecules.

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